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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,750	04/30/2001	Louis Arquie	K35A0767	4477

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EXAMINER
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NGUYEN, LE V

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/846,750

Applicant(s)

ARQUIE ET AL.

Examiner

Le Nguyen

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6/9/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

### **DETAILED ACTION**

1. This communication is responsive to an amendment filed 6/9/04.
2. Claims 1-29 are pending in this application. Claims 1, 8, 20 and 25 are independent claims; claims 25-29 are newly added; claims 1, 5, 8 and 20 have been amended; and claims 10 and 11 have been canceled. Due to examiner's oversight, claim 20 was inadvertently omitted from the original rejection and, therefore, this action is made Final.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

4. Claim 29 is objected to because of the following informalities: "configuration request defining a subset of the group of port information to include in the displayed port information, and wherein" of lines 2-3 of page 7, appears to contain a grammatical error. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites the limitation "the group of port information" in lines 1-2 of page

7. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

8. Claims 1-4, 7-9, 14, 15 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu").

As per claim 1, Walker teaches a computer-implemented method of displaying device port information in a network topology display, comprising: displaying a device node in a network topology display, the displayed device node representing a connection device in a network, the connection device having one or more connection ports for connecting to one or more devices in the network (figs. 4-5; *displayed are nodes wherein in networking nodes are devices connected to the network*); displaying one or more connection paths coupled to the displayed device node, the connection paths representing connections to the one or more ports of the connection device (figs. 4-5; *port information displayed such as port number ("Port 1") and port type (of duplex type)*); and selectively expanding the displayed device node in response to a user selection, wherein the expanded node includes port information for each of the one or more ports having a connection to another device in the network corresponding to the connection paths (figs. 4-5; col. 4, lines 30-64; col. 5, lines 11-29; col. 8, line 19 through

col. 9, line 33). Walker does not explicitly disclose expanding the displayed device node in response to a user selection of the device node. Nulu teaches a computer-implemented method of displaying device port information in a hardware topology display, comprising expanding the displayed device node in response to a user selection of the device node corresponding to the connection paths (col. 6, lines 46-52). Therefore, it would have been obvious to an artisan at the time of the invention to include Nulu's teaching of expanding the displayed device node in response to a user selection of the device node in a computer-implemented method of displaying device port information in a tree view of hardware connections which include port information to Walker's teaching of expanding the displayed device node in response to a user selection in a computer-implemented method of displaying device port information in a tree view of device connections which include virtual port information in order to provide users with architectural perspectives that are rapidly obtainable.

As per claim 2, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents a connection device selected from the group consisting of a switch, a hub and a router (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28; col. 4, lines 56-64; col. 5, lines 11-39).

As per claim 3, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information includes the port number (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *Port 1*).

As per claim 4, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information includes a port connection type indicator (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; *of duplex type*).

As per claim 7, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents the connection device and one or more devices connected to the connection device (Walker: figs. 4-5 *and respective portions of the specification*).

Claim 8 is similar in scope to the combination of claims 3 and 4 and is therefore rejected under similar rationale.

Claims 9 and 21 are individually similar in scope to claim 2 and are therefore rejected under similar rationale.

Claim 14 is similar in scope to claim 7 and is therefore rejected under similar rationale.

As per claim 15, Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the user selection includes selecting the displayed device node with a user input device (col. 3, lines 60-61; col. 4, lines 42-47; col. 5, lines 23-25).

As per claim 18, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising removing the displayed port information from the display in response to a user selection to remove port information (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28;

col. 4, lines 56-64; col. 5, lines 11-39; *port information is displayed only as long as users' pointers rest on the graphical representation*).

As per claim 19, Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed device node represents the connection device and one or more devices connected to the connection device (figs. 1, 4 and 5).

Claim 20 is similar in scope to the combination of claims 3 and 4 and is therefore rejected under similar rationale except for the claimed feature of an indication of the ports having no connection, which is inherent given that the topology displays devices and their port connections.

9. Claims 5, 6, 12, 13, 23-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claims 1, 8 and 20, and further in view of Dev et al. ("Dev").

As per claim 5, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein selectively expanding includes displaying the port information proximal the connection bar one or more ports having a connection (Walker: figs. 4 and 5; Nulu: col. 6, lines 46-52), the modified Walker does not explicitly disclose displaying the port information proximal the connection bar for each of the one or more ports having a connection. Dev teaches a computer-implemented method of displaying device port information in a network topology display wherein selectively expanding includes displaying a connection bar and displaying the port information proximal the connection bar for each

of the one or more ports having a connection (figs. 7A-8B; col. 5, line 41 through col. 6, line 19; col. 13, line 30 through col. 14 line 25). Therefore, it would have been obvious to an artisan at the time of the invention to include Dev's method of displaying device port information in a network topology display wherein selectively expanding includes displaying a connection bar to the modified Walker's method of displaying device port information in a network topology display wherein selectively expanding includes displaying the port information proximal the connection bar for each of the one or more ports having a connection in order to provide users with a method of traversing between location and topological views to obtain any necessary information regarding the configuration of the network all at once.

As per claim 6, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the displayed port information for each port is displayed proximal the connection bar in a location indicating the relative location of the corresponding connected device in the network topology display (Dev: figs. 7A-8B).

Claims 12 and 23 are individually similar in scope to claim 5 and are therefore rejected under similar rationale.

Claims 13 and 24 are individually similar in scope to claim 6 and are therefore rejected under similar rationale.

Claim 25 is similar in scope to claim 13, which is similar in scope to claim 6, and is therefore rejected under similar rationale.



As per claim 26, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information corresponding to the portion of the connection ports is displayed within the expanded view at elevations corresponding to elevations in the network topology display of the other devices connected to the device node (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; Dev: figs. 7A-8B; col. 13, line 30 through col. 14 line 25; col. 5, line 41 through col. 6, line 19; Nulu: col. 6, lines 46-52; *selective locating of port information and the use of elevations*).

As per claim 28, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the port information is selected from the group of port information consisting of port type, and port state (Walker: figs. 4 and 5; *displayed port information such as port number, port type and port state, i.e. connected Port 1 of duplex type*).

10. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claim 8, and further in view of Dev et al. ("Dev").

As per claim 16, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the user selection includes selecting a show ports option by clicking on icons (Walker: figs. 1, 4 and 5; col. 3, line 47 through col. 4, line 28; col. 4, lines 56-64; col. 5, lines 11-39), Walker does not explicitly disclose the user selection to include selecting a show ports option from a menu of options. Dev teaches a computer-implemented method of

displaying device port information in a network topology display wherein the user selection includes both selecting a show ports option by clicking on icons *and* selecting a show ports option from a menu of options (col. 14, lines 9-13). Therefore, it would have been obvious to an artisan at the time of the invention to include Dev's method of selecting a show ports option from a menu of options in a computer-implemented method of displaying device port information in a network topology display with the modified Walker's method of displaying device port information in a network topology display wherein the user selection includes both selecting a show ports option by clicking on icons in a computer-implemented method of displaying device port information in a network topology display in order to provide an additional method of selection that is common to window based displays.

As per claim 17, the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising displaying the menu of options in response to a user selection of the displayed device node (Dev: col. 13, line 30 through col. 14, line 13).

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") as applied to claim 20.

As per claim 22, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the network is a LAN, the modified Walker does not explicitly disclose a computer-implemented method of displaying device port information in a network topology display wherein the network is a SAN. Official Notice is taken that SAN is well known in the art.

Therefore, it would have been obvious to an artisan at the time of the invention to include a SAN to the modified Walker's LAN in order to provide the scalability, speed and manageability required in environments that demand high data availability.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") and Dev et al. ("Dev") as applied to claim 20, and further in view of Simpson.

As per claim 27, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display wherein the expanded view comprises port information for the connection ports of the device node that are connected to devices in the network and not displaying ports not connected to devices in the network, the modified Walker does not explicitly disclose displaying ports that are not connected to the other devices in the network. Simpson teaches displaying ports that are connected as well as ports that are not connected to other devices in the network (col. 10, line 54 through col. 11, line 10). Therefore, it would have been obvious to an artisan at the time of the invention to include Simpson's teaching of displaying ports that are connected as well as ports that are not connected to other devices in the network to the modified Walker's teaching of displaying ports that are connected to devices in the network so that users may recognize ports that are available for communication.

13. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. ("Walker") in view of Nulu et al. ("Nulu") and Dev et al. ("Dev") as applied to claim 28, and further in view of Bare.

As per claim 29, although the modified Walker teaches a computer-implemented method of displaying device port information in a network topology display comprising receiving a user-input request for port information and displaying a subset of a group of port information (Walker: figs. 4-5; col. 4, lines 56-64; col. 5, lines 11-39; Dev: figs. 7A-8B; col. 13, line 30 through col. 14 line 25; col. 5, line 41 through col. 6, line 19; Nulu: col. 6, lines 46-52), the modified Walker does not explicitly disclose the user-input to be a configuration request defining a subset of the group of port information to be included in the displayed port information and wherein the displayed port information is configured to comprise the subset (). Therefore, it would have been obvious to an artisan at the time of the invention to include Bare's teaching of a user-input to be a configuration request defining a subset of the group of port information to be included in the displayed port information and wherein the displayed port information is configured to comprise the subset to the modified Walker's teaching of a user-input request for port information and displaying a subset of a group of port information in order to prevent loss of connectivity in scenarios that include multiple load balance domains.

### ***Response to Arguments***

14. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection, except for the following applicant's arguments filed 6/1/2004, which have been fully considered but are not persuasive.

Applicant argued the following:

(a) Although Walker's link information may include which port number the link is connected to, Walker does not teach displaying port information for a selected node for each and every port that is connected.

(b) Although Walker teaches displaying a name of a node and link information including a port number and link type, there is no teaching of an indicator of a port connection type as part of the label for the node or as part of the link information displayed when a communication link or connector is selected; moreover, the link information fails to include a type indicator for ports connected to the link.

(c) Walker fails to anticipate "an indication of the ports having an actual connection to another device in the network and the ports having no connection" so that users may readily understand which nodes are connected (or in use) and which are still available on the device.

(d) Although Dev teaches full screen shots displaying network maps, Dev fails to teach displaying port information with reference to a selected node, and clearly, fails to teach the use of an expanded view of a node within a displayed network topology.

(e) Dev fails to teach displaying port information proximal the connection bar, the port information indicating the relative location of the corresponding connected device in the network topology display.

The examiner disagrees for the following reasons:

Per (a), Walker does teach displaying port information for a selected node for a port that is connected. The information for each and every port is displayed as a tool-tip and is dependent on at which end of the link the pointer is held (col. 5, lines 11-29). If by displaying port information for each and every port applicant meant each and every port in a pool of possible available ports, applicant is invited to amend the claim to reflect this meaning.

Per (b), Walker teaches an indicator of a port connection type as part of the label for the node or as part of the link information displayed when a communication link or connector is selected, i.e. the link information includes a type indicator for ports connected to the link (fig. 5; col. 5, lines 11-29; *displayed are port connection type indicator of half duplex and a port number, Port 1*).

Per (c) and in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., so that users may readily understand which nodes are connected (or in use) and which are still available on the device) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Walker teaches an indication of the ports having an actual connection to another device in the network and the ports having no connection (fig. 5; col. 5, lines 11-29; *indication of ports having an actual connection via tool-tips whereby ports having no connection is not displayed*). If applicant meant to include "so

that users may readily understand which nodes are connected (or in use) and which are still available on the device” in the claim, applicant is invited to do so.

Per (d), in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Walker teaches displaying port information with reference to a selected node (fig. 5; col. 4, lines 56-64; col. 5, lines 11-29). Dev teaches an expanded view of a node within a displayed network topology (figs. 7A-8B; col. 13, line 30 through col. 14 line 25; col. 5, line 41 through col. 6, line 19).

Per (e), Dev teaches displaying topological models representing the network devices that are topologically associated with a local area network or subnetwork wherein users may traverse between views or view details of a network device by clicking on network device icons displayed with the connection bar showing the interconnection between network devices (figs. 7A-8B; col. 13, line 30 through col. 14 line 25; col. 5, line 41 through col. 6, line 19; *models can represent components of network devices such as ports or port information*).

### **Conclusion**

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Inquires***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN  
Patent Examiner  
October 28, 2004

*Kristine Kincaid*  
KIRSTINE KINCAID  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY UNIT 2174